

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
2 March 2006 (02.03.2006)

PCT

(10) International Publication Number  
**WO 2006/022528 A1**

- (51) International Patent Classification<sup>7</sup>: C08L 51/04, 23/16
- (21) International Application Number:  
PCT/KR2005/002833
- (22) International Filing Date: 26 August 2005 (26.08.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
10-2004-0068088 27 August 2004 (27.08.2004) KR
- (71) Applicant (for all designated States except US): LG CHEM, LTD. [KR/KR]; LG Twin Towers, East Tower 20, Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KANG, Byoung-il [KR/KR]; 205-405, Songgang Chungsol Apt., Songgang-dong, Yuseong-gu, Daejeon 305-752 (KR). YOU, Han-jong [KR/KR]; 202-1201, Songgang Maeul Apt., Songgang-dong, Yuseong-gu, Daejeon 305-503 (KR). KIM, Seong-lyong [KR/KR]; 405-402, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-762 (KR).
- (74) Agent: CHO, In-Jae; Newkorea International Patent & Law Office, 3rd FL, Ianghyun Bldg., 637-23, Yeoksam-dong, Gangnam-gu, Seoul 135-909 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AF, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: STYRENE-BASED THERMOPLASTIC RESIN COMPOSITIONS WITH VERY LOW GLOSS AND HIGH IMPACT STRENGTH

(57) Abstract: The present invention relates to styrene-based thermoplastic resin compositions in which 1-10 weight part of a low-gloss additive selected from a group consisting of polyolefin copolymer(C) containing glycidyl methacrylate functional groups, styrene polymer(D) harboring two or more carboxyl functional groups per molecule, and a mixture of them, was added to 100 weight part of basic resin composed of 30-70 weight part of graft copolymer(A) containing rubber modified styrene and 30-70 weight part of copolymer(B) harboring styrene. The thermoplastic resin composition of the present invention has excellent impact strength and satisfactorily low gloss.

WO 2006/022528 A1